

ABSTRACT

The present invention relates to pluripotent stem cells, particularly to pluripotent embryonic-like stem cells. The invention further relates to methods of purifying pluripotent embryonic-like stem cells and to compositions, cultures and clones thereof.

- 5 The present invention also relates to a method of transplanting the pluripotent stem cells of the present invention in a mammalian host, such as human, comprising introducing the stem cells, into the host. The invention further relates to methods of *in vivo* administration of a protein or gene of interest comprising transfecting a pluripotent stem cell with a construct comprising DNA which encodes a protein of
- 10 interest and then introducing the stem cell into the host where the protein or gene of interest is expressed. The present also relates to methods of producing mesodermal, endodermal or ectodermal lineage-committed cells by culturing or transplantation of the pluripotent stem cells of the present invention.